

Oct 14

# TAYLOR WOODROW SERVICES LIMITED

DIRECTORS  
R. G. HEASMAN, CHAIRMAN  
R. COPLESTON, MANAGING  
J. M. I. HEBB  
P. I. BOORER  
N. FLETCHER  
SECRETARY  
A. D. F. GILBERT, M.A., LL.B.

RUISLIP ROAD, SOUTHALL  
MIDDLESEX

TELEGRAMS  
TAYWOOD, SOUTHALL, TELEX  
TELEX No. 24428  
TELEPHONE  
WAXLOW 2366

YOUR REF. .... OUR REF. ESS/CR

7th October, 1960.

Dear Sir,

Press Preview, Zidpark.  
9 a.m. - 12.30 p.m., Friday, October 14th

Construction at the Southwark Bridge Zidpark has now reached the stage where the "push button" parking system is under test.

In view of current concentration on parking problems, and on the eve of the Motor Show, you may care to see the tests between the times given above.

The Zidpark was the first fully automatic multi-storey car park planned in the United Kingdom, and when in operation early next year will absorb cars at an estimated rate of 250 in half an hour.

An early reply on the enclosed card would be appreciated, particularly if a car is being brought to test the installation.

The site, alongside the north bank of the river, is in the area bounded by Southwark Bridge Approach, Upper Thames Street, and the Cannon Street railway line, and will be clearly marked.

Yours very truly,

  
E.S. Sadler,

Press Officer - Taylor Woodrow Group



Please let me know if you are able to attend. To keep you informed about this, in case of any interest now, or at a later date.

# PRESS INFORMATION

TAYLOR WOODROW GROUP · RUISLIP ROAD · SOUTHALL · MIDDLESEX

ZID PARK  
"PUSH-BUTTON" PARKING

U.K.'s First Fully Automatic System Will Berth 250 Each Half Hour

The push-button parking system, the Zidpark, now under test at Southwark Bridge, London, will when completed and in operation, early next year, absorb cars off the street at an estimated rate of 250 in half an hour. The first multi-storey, fully automatic car park planned for the United Kingdom and the first of its type in the world, the Zidpark is being erected by Myton Ltd., a member of the Taylor Woodrow Group of building and civil engineering companies.

The Zidpark will accommodate 464 cars on eight floors (it will be a seven-storey structure with basement) and there will be 16 lifts. With additional covered facilities at ground floor level there will be parking for over 500 cars in all.

The Zidpark is part of a £750,000 project which Myton are developing on a 50,000 square feet area between Upper Thames Street and the river alongside Southwark Bridge. The remainder of the project includes a seven-storey office block with ground floor show rooms fronting Upper Thames Street and with a total office space of about 46,000 square feet; a public house and a proposed new centre for the Little Ship Club.

A service station and a 12 pump petrol station associated with the car park (but open to other motorists) will also be built. The architects for the whole project are C. Edmund Wilford and Son, F/A.R.I.B.A. of Green Street, London, W.1.

The original design of the Zidpark system is that of M. Andre Theon, a French engineer living in Switzerland and Myton acquired the British rights.

For additional information: ERIC S. SADLER, PRESS OFFICER TELEPHONE: WAXLOW 2366

HOME: MOUNTVIEW 8127

### How the Zidpark works

A feature of the Zidpark, in addition to the lifts, is that cars are moved sideways on conveyors of cross bars and rotated by endless chains. Each of the car berths has two synchronized conveyors for the front and rear wheels respectively.

Transport of a car to its parking berth and subsequent removal is entirely automatic. Neither the attendant nor the driver need accompany it. All movement flows from control panels at ground floor level.

The park is sectionalized, each section having a lift and serving four spaces on each of the floor levels. The layout of the controls corresponds to that of the berths. A hole with a numbered plug represents each parking berth and is plugged in as a space is selected.

On arrival, a car is directed on to the conveyors adjoining the lifts, the engine is stopped, the brake is applied and the driver leaves after receiving a numbered counter corresponding to the numbered plug selected by the operator. The operator then inserts the numbered plug into the control panel and the car is taken automatically to the selected berth.

There is a similar process in reverse when a car is called for but if, when de-parking, the operator has to obtain a car from an inner position, he transfers another car to a vacant space which is always left free.

Although the first Zidpark is to be housed in a rectangular building, the system does not require a rigid layout and can be adapted to sites of varying shapes and sizes and to existing buildings.

Firms associated with the project as sub-contractors include :-

Sharp Control Gear Ltd., of Ashby de la Zouch.  
Hartley Electromotives Ltd., of Shrewsbury.  
Pom and Dunwoody (Lifts) Ltd., London.  
S.E. Opperman Ltd. (for conveyors), of Boreham Wood.

-----

2-517901  
For release on 14th October, 1960

PARKALL-ZIDPARK AUTOMATIC GARAGES

The ZIDPARK Automatic Garage being built by Myton Limited at Southwark Bridge is covered by a licence from Matisa Equipment Limited, Chertsey, Surrey, who are agents for Materiel Industriel S.A., Switzerland, holders of the world rights from M. Thon the inventor and patentor of the system.

Materiel Industriel S.A. also holds patent rights for other PARKALL systems of automatic garages which are suitable for the mechanical handling of cars in cases where the ZIDPARK would be unsuitable e.g. in existing buildings either above or below ground.

These other PARKALL systems can combine the ZIDPARK principle of conveyors on which the cars are parked with, for example, the use of a mobile lift. Such a system is suitable for existing underground garages where cars can be accommodated at 2 levels only.

Additionally Matisa Equipment Limited are licensees for all PARKALL-ZIDPARK Automatic Garage systems for the British Commonwealth.

Matisa Equipment Limited,  
Hanworth Lane,  
CHERTSEY.  
Surrey.

Tels. No. Chertsey 2064

## SUPPLEMENTARY NOTES ON CONTROL GEAR

### What ZIDPARK does - and how it does it

A triumph of automation

- designed and engineered by a Midlands firm

In November 1958 Sharp Control Gear undertook the problem of designing and engineering the complete electrical control system and equipment for the fully-automatic parking of motor cars on eight floors of a specified area. At this stage no more than a bare specification and a basic circuit diagram were available to Sharp Control Gear.

During 1959 the Sharp design team not only worked out and perfected the complex circuit diagrams, they also had to design units of equipment which are essential to the success of the project. Before the full scale manufacturing schedules were started the extremely complex programming of the automation processes was checked and rechecked on a digital computer.

### The parking and unparking operations

ZIDPARK can accommodate 464 cars on a basement, a ground floor and six upper floors. A car is driven under its own power on to roller conveyors in front of any one of the 16 lifts. The driver then gets out of the car, having switched off the engine. From there on, ZIDPARK takes over. The car is automatically conveyed to its parking space on any one of the eight floors and is subsequently automatically returned to the ground floor.

### Arrangement of the lifts and the parking spaces

The 16 lifts are arranged in banks of four. There are parking spaces for two cars on each side of each lift, on each floor except on the ground floor where the loading bay excludes the use of one side of the lifts as a parking space. Hence there are 4 x 16 parking spaces on each of seven floors and 2 x 16 spaces on one floor - the ground floor.

One spare parking space per lift must be kept free for transfer operations. Thus, the parking spaces may be summarised as follows: -

4 x 16 spaces on seven floors	=	448 spaces
2 x 16 spaces on ground floor	=	32 spaces
		<u>480 spaces</u>
Less one space per lift for transfer operations	=	16 spaces
Total number of parking spaces	=	<u><u>464 spaces</u></u>

#### How the cars are moved

The movement of cars on to and off the lifts is effected by roller conveyors. These conveyors move the cars sideways, thus reducing the length of the conveyors (since they move car-widths instead of car-lengths) and preventing car wheel movement which could put cars out of position.

The driving motor for the conveyors is mounted on the lift; the conveyors on the lifts drive the floor conveyors in either direction (loading or unloading) through motor-operated dog clutches.

#### Centralising a car on a lift

When a car is moved sideways on to or off a lift it is carried on two roller conveyors, one for the front wheels and one for the rear wheels. Owing to the change in peripheral speed of the rollers where the lift conveyors meet the floor conveyor and because no car has an even weight distribution over the front and rear wheels, a car can "twist" during its movement on to or off a lift. Further, it must be remembered that during the period that a car is "parked" it may be moved from one parking space to another to facilitate the parking of other cars, hence the "twist" could be cumulative.

To obviate this "twist" cars are automatically centralised each time they are moved on to a lift. The centralising is achieved through a set of specialised equipment installed on each of the lifts. This equipment consists of a geared centralising unit working in conjunction with magnetic clutches and photoelectric cells which measure the width of the car being moved,

stops the conveyors individually and ensures that the car comes to rest with its centre line coinciding with that of the lift.

#### Sequence and method of operation

The operation of each lift unit (one lift and 29 parking spaces) is controlled from a console. There are, of course, 16 control consoles, one for each lift, and they are built to stand together so that four consoles can be grouped together under one operation - the whole of ZIDPARK being operated through no more than four control centres.

There are five possible alternative functions which the operator can perform:-

1. Entry only.
2. Exit only.
3. Entry/Exit
4. Transfer/Exit.
5. Entry/Transfer/Exit.

Any one of these is set up by means of keys inserted into or withdrawn from specially designed key holes. These are arranged on the control console to represent the actual car spaces. Thus keys may be inserted in pairs on each side of the panel, the centre line representing the lift shaft. The insertion of the first key into such a double unit corresponds to the parking of a car in the space furthest from the lift on the selected side. This key can then be slid towards the side of the panel leaving room for a second key to be inserted to correspond to a car in the inner space.

In order to minimise the possibility of error in setting up, five push buttons and five indicating lamps are provided appropriate to the five alternative functions listed above. The pressing of one of these buttons instructs the equipment as to which function is to be carried out, and then the correct key movements only will be accepted. A further five indicating lamps then indicate when these key movements have been made.

Finally the pressing of an initiate button causes the function to be carried out. The accidental pressing of an incorrect function button can be cancelled by means of a cancel button.

Safety devices

ZIDPARK is protected in every possible way by a range of safety devices; the whole operation of the car park is on a fail-to-safety basis.

SHARP CONTROL GEAR LIMITED  
Lount Works,  
Ashby-de-la-Zouch,  
Leicestershire.  
Telephone: Ashby 422

EHS/MLN

14th October, 1960

PRESS enquiries on the Company's part in the ZIDPARK project should be addressed to:

E. H. Sullivan

THE D. BROOK-HART COMPANY  
Premier House,  
48 Dover Street,  
LONDON W.1.

Telephone: MAYfair 6147-9